## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 24 November 2005 (24.11.2005)

PC

## (10) International Publication Number WO 2005/110525 A3

- (51) International Patent Classification: *A61M 37/00* (2006.01)
- (21) International Application Number:

PCT/US2005/012122

- (22) International Filing Date: 11 April 2005 (11.04.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/561,378	12 April 2004 (12.04.2004)	US
60/561,400	12 April 2004 (12.04.2004)	US
60/561,389	12 April 2004 (12.04.2004)	US
60/561,395	12 April 2004 (12.04.2004)	US
60/561,480	12 April 2004 (12.04.2004)	US
60/561,390	12 April 2004 (12.04.2004)	US

- (71) Applicant (for all designated States except US): ALLER-GAN, INC. [US/US]; 2525 Dupont Drive, Post Office Box 19534, Irvine, CA 92612 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KIMMELL, Steven, D. [US/US]; 12754 Deon Place, Granada Hills, CA 91344-1001 (US). GERONDALE, Scott, J. [US/US]; 12 Risero Drive, Mission Viejo, CA 92692 (US).
- (74) Agents: JOHNSON, Brent, A. et al.; c/o Allergan, Inc., 2525 Dupont Drive, Irvine, CA 92612 (US).

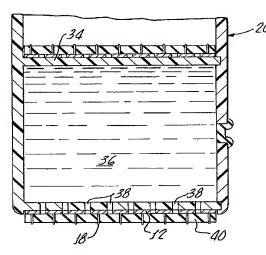
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

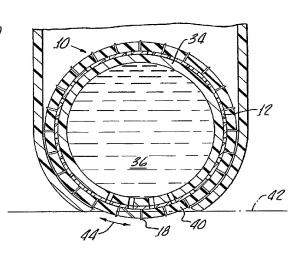
## **Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 9 March 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTI-SITE INJECTION SYSTEM





(57) Abstract: A multi-site injection system (10) in accordance with the present invention generally includes a plurality of medicament delivering needles/microprotrusions (18) along with a support therefore. A supply of medicament (36) is provided and a means provided for supplying the medicament to the plurality of needles/microprotrusions in order to effect delivery into a stratum corneum (42) of a user.